

Appendix-A LTE Band 5

Effective (Isotropic) Radiated Power Output Data

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result (dBm)	ERP (dBm)	Limit (dBm)	Verdict
Band5	1.4MHz	QPSK	20407	1RB#0	22.51	22.36	38.45	PASS
Band5	1.4MHz	QPSK	20407	1RB#2	22.57	22.42	38.45	PASS
Band5	1.4MHz	QPSK	20407	1RB#5	22.37	22.22	38.45	PASS
Band5	1.4MHz	QPSK	20407	6RB#0	21.73	21.58	38.45	PASS
Band5	1.4MHz	16QAM	20407	1RB#0	21.92	21.77	38.45	PASS
Band5	1.4MHz	16QAM	20407	1RB#2	21.96	21.81	38.45	PASS
Band5	1.4MHz	16QAM	20407	1RB#5	21.82	21.67	38.45	PASS
Band5	1.4MHz	16QAM	20407	6RB#0	20.85	20.7	38.45	PASS
Band5	1.4MHz	QPSK	20525	1RB#0	22.37	22.22	38.45	PASS
Band5	1.4MHz	QPSK	20525	1RB#2	22.41	22.26	38.45	PASS
Band5	1.4MHz	QPSK	20525	1RB#5	22.27	22.12	38.45	PASS
Band5	1.4MHz	QPSK	20525	6RB#0	21.49	21.34	38.45	PASS
Band5	1.4MHz	16QAM	20525	1RB#0	21.83	21.68	38.45	PASS
Band5	1.4MHz	16QAM	20525	1RB#2	21.95	21.8	38.45	PASS
Band5	1.4MHz	16QAM	20525	1RB#5	21.72	21.57	38.45	PASS
Band5	1.4MHz	16QAM	20525	6RB#0	20.73	20.58	38.45	PASS
Band5	1.4MHz	QPSK	20643	1RB#0	22.21	22.06	38.45	PASS
Band5	1.4MHz	QPSK	20643	1RB#2	22.22	22.07	38.45	PASS
Band5	1.4MHz	QPSK	20643	1RB#5	22.09	21.94	38.45	PASS
Band5	1.4MHz	QPSK	20643	6RB#0	21.21	21.06	38.45	PASS
Band5	1.4MHz	16QAM	20643	1RB#0	21.41	21.26	38.45	PASS
Band5	1.4MHz	16QAM	20643	1RB#2	21.63	21.48	38.45	PASS
Band5	1.4MHz	16QAM	20643	1RB#5	21.44	21.29	38.45	PASS
Band5	1.4MHz	16QAM	20643	6RB#0	20.63	20.48	38.45	PASS
Band5	3MHz	QPSK	20415	1RB#0	22.41	22.26	38.45	PASS
Band5	3MHz	QPSK	20415	1RB#8	22.61	22.46	38.45	PASS
Band5	3MHz	QPSK	20415	1RB#14	22.49	22.34	38.45	PASS
Band5	3MHz	QPSK	20415	15RB#0	21.59	21.44	38.45	PASS
Band5	3MHz	16QAM	20415	1RB#0	21.95	21.8	38.45	PASS
Band5	3MHz	16QAM	20415	1RB#8	21.91	21.76	38.45	PASS
Band5	3MHz	16QAM	20415	1RB#14	21.62	21.47	38.45	PASS
Band5	3MHz	16QAM	20415	15RB#0	20.87	20.72	38.45	PASS
Band5	3MHz	QPSK	20525	1RB#0	22.07	21.92	38.45	PASS
Band5	3MHz	QPSK	20525	1RB#8	22.32	22.17	38.45	PASS
Band5	3MHz	QPSK	20525	1RB#14	21.95	21.8	38.45	PASS
Band5	3MHz	QPSK	20525	15RB#0	21.33	21.18	38.45	PASS

Band5	3MHz	16QAM	20525	1RB#0	21.46	21.31	38.45	PASS
Band5	3MHz	16QAM	20525	1RB#8	21.7	21.55	38.45	PASS
Band5	3MHz	16QAM	20525	1RB#14	21.38	21.23	38.45	PASS
Band5	3MHz	16QAM	20525	15RB#0	20.66	20.51	38.45	PASS
Band5	3MHz	QPSK	20635	1RB#0	21.99	21.84	38.45	PASS
Band5	3MHz	QPSK	20635	1RB#8	22.23	22.08	38.45	PASS
Band5	3MHz	QPSK	20635	1RB#14	22.16	22.01	38.45	PASS
Band5	3MHz	QPSK	20635	15RB#0	21.34	21.19	38.45	PASS
Band5	3MHz	16QAM	20635	1RB#0	21.55	21.4	38.45	PASS
Band5	3MHz	16QAM	20635	1RB#8	21.79	21.64	38.45	PASS
Band5	3MHz	16QAM	20635	1RB#14	21.62	21.47	38.45	PASS
Band5	3MHz	16QAM	20635	15RB#0	20.7	20.55	38.45	PASS
Band5	5MHz	QPSK	20425	1RB#0	22.89	22.74	38.45	PASS
Band5	5MHz	QPSK	20425	1RB#12	22.72	22.57	38.45	PASS
Band5	5MHz	QPSK	20425	1RB#24	22.84	22.69	38.45	PASS
Band5	5MHz	QPSK	20425	25RB#0	21.92	21.77	38.45	PASS
Band5	5MHz	16QAM	20425	1RB#0	22.13	21.98	38.45	PASS
Band5	5MHz	16QAM	20425	1RB#12	21.94	21.79	38.45	PASS
Band5	5MHz	16QAM	20425	1RB#24	22.17	22.02	38.45	PASS
Band5	5MHz	16QAM	20425	25RB#0	21.08	20.93	38.45	PASS
Band5	5MHz	QPSK	20525	1RB#0	22.34	22.19	38.45	PASS
Band5	5MHz	QPSK	20525	1RB#12	22.36	22.21	38.45	PASS
Band5	5MHz	QPSK	20525	1RB#24	22.21	22.06	38.45	PASS
Band5	5MHz	QPSK	20525	25RB#0	21.51	21.36	38.45	PASS
Band5	5MHz	16QAM	20525	1RB#0	21.44	21.29	38.45	PASS
Band5	5MHz	16QAM	20525	1RB#12	21.69	21.54	38.45	PASS
Band5	5MHz	16QAM	20525	1RB#24	21.72	21.57	38.45	PASS
Band5	5MHz	16QAM	20525	25RB#0	20.69	20.54	38.45	PASS
Band5	5MHz	QPSK	20625	1RB#0	22.4	22.25	38.45	PASS
Band5	5MHz	QPSK	20625	1RB#12	22.34	22.19	38.45	PASS
Band5	5MHz	QPSK	20625	1RB#24	22.51	22.36	38.45	PASS
Band5	5MHz	QPSK	20625	25RB#0	21.53	21.38	38.45	PASS
Band5	5MHz	16QAM	20625	1RB#0	21.63	21.48	38.45	PASS
Band5	5MHz	16QAM	20625	1RB#12	21.82	21.67	38.45	PASS
Band5	5MHz	16QAM	20625	1RB#24	22.05	21.9	38.45	PASS
Band5	5MHz	16QAM	20625	25RB#0	20.87	20.72	38.45	PASS
Band5	10MHz	QPSK	20450	1RB#0	22.69	22.54	38.45	PASS
Band5	10MHz	QPSK	20450	1RB#24	22.58	22.43	38.45	PASS
Band5	10MHz	QPSK	20450	1RB#49	23.18	23.03	38.45	PASS
Band5	10MHz	QPSK	20450	50RB#0	21.75	21.6	38.45	PASS
Band5	10MHz	16QAM	20450	1RB#0	22.35	22.2	38.45	PASS
Band5	10MHz	16QAM	20450	1RB#24	21.78	21.63	38.45	PASS
Band5	10MHz	16QAM	20450	1RB#49	22.48	22.33	38.45	PASS
Band5	10MHz	16QAM	20450	27RB#0	21.12	20.97	38.45	PASS
Band5	10MHz	QPSK	20525	1RB#0	22.36	22.21	38.45	PASS

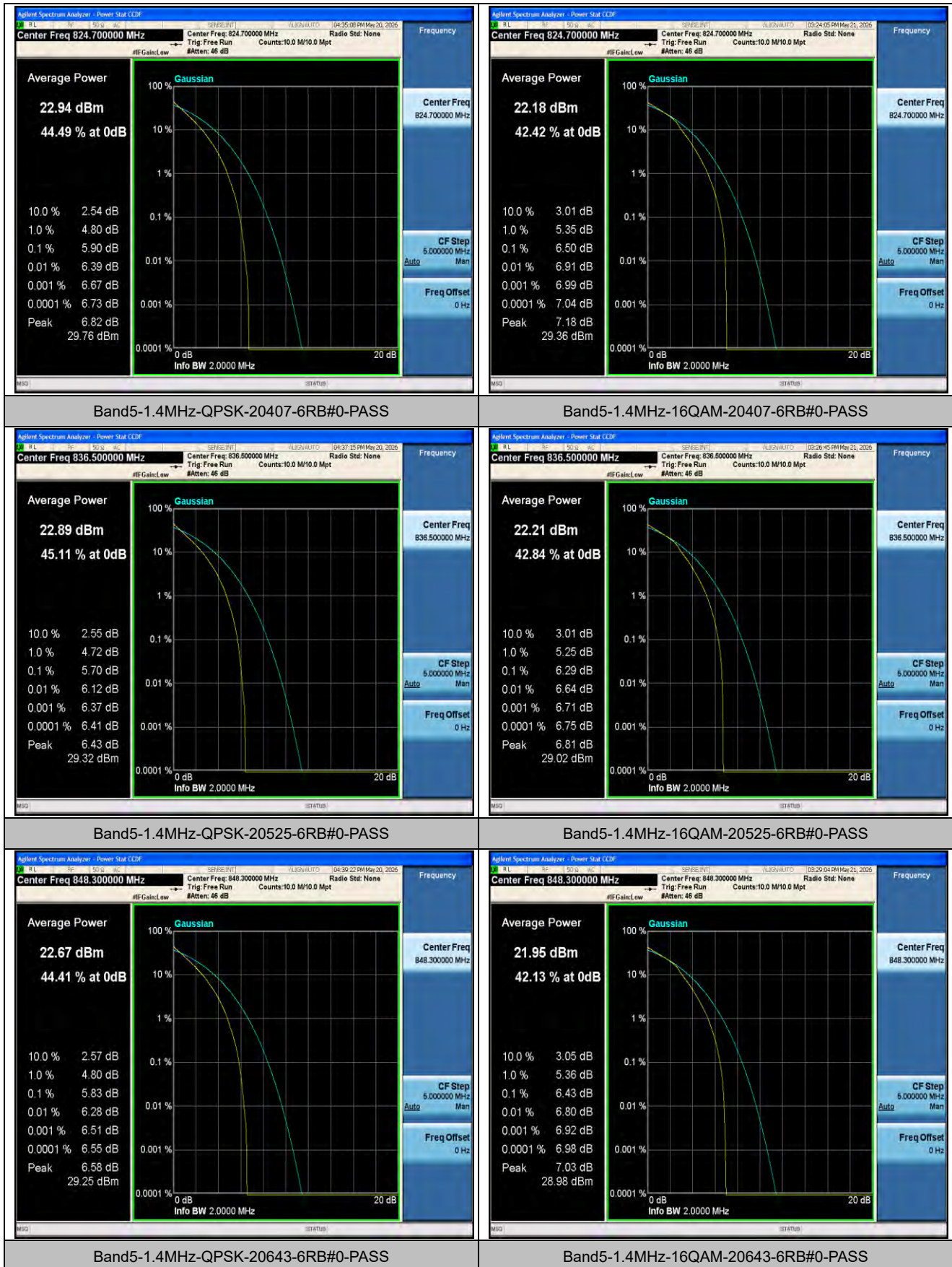
Band5	10MHz	QPSK	20525	1RB#24	22.39	22.24	38.45	PASS
Band5	10MHz	QPSK	20525	1RB#49	21.84	21.69	38.45	PASS
Band5	10MHz	QPSK	20525	50RB#0	21.36	21.21	38.45	PASS
Band5	10MHz	16QAM	20525	1RB#0	21.54	21.39	38.45	PASS
Band5	10MHz	16QAM	20525	1RB#24	21.52	21.37	38.45	PASS
Band5	10MHz	16QAM	20525	1RB#49	21.46	21.31	38.45	PASS
Band5	10MHz	16QAM	20525	27RB#0	20.84	20.69	38.45	PASS
Band5	10MHz	QPSK	20600	1RB#0	22.94	22.79	38.45	PASS
Band5	10MHz	QPSK	20600	1RB#24	22.14	21.99	38.45	PASS
Band5	10MHz	QPSK	20600	1RB#49	22.46	22.31	38.45	PASS
Band5	10MHz	QPSK	20600	50RB#0	21.5	21.35	38.45	PASS
Band5	10MHz	16QAM	20600	1RB#0	21.73	21.58	38.45	PASS
Band5	10MHz	16QAM	20600	1RB#24	21.91	21.76	38.45	PASS
Band5	10MHz	16QAM	20600	1RB#49	21.85	21.7	38.45	PASS
Band5	10MHz	16QAM	20600	27RB#0	21	20.85	38.45	PASS

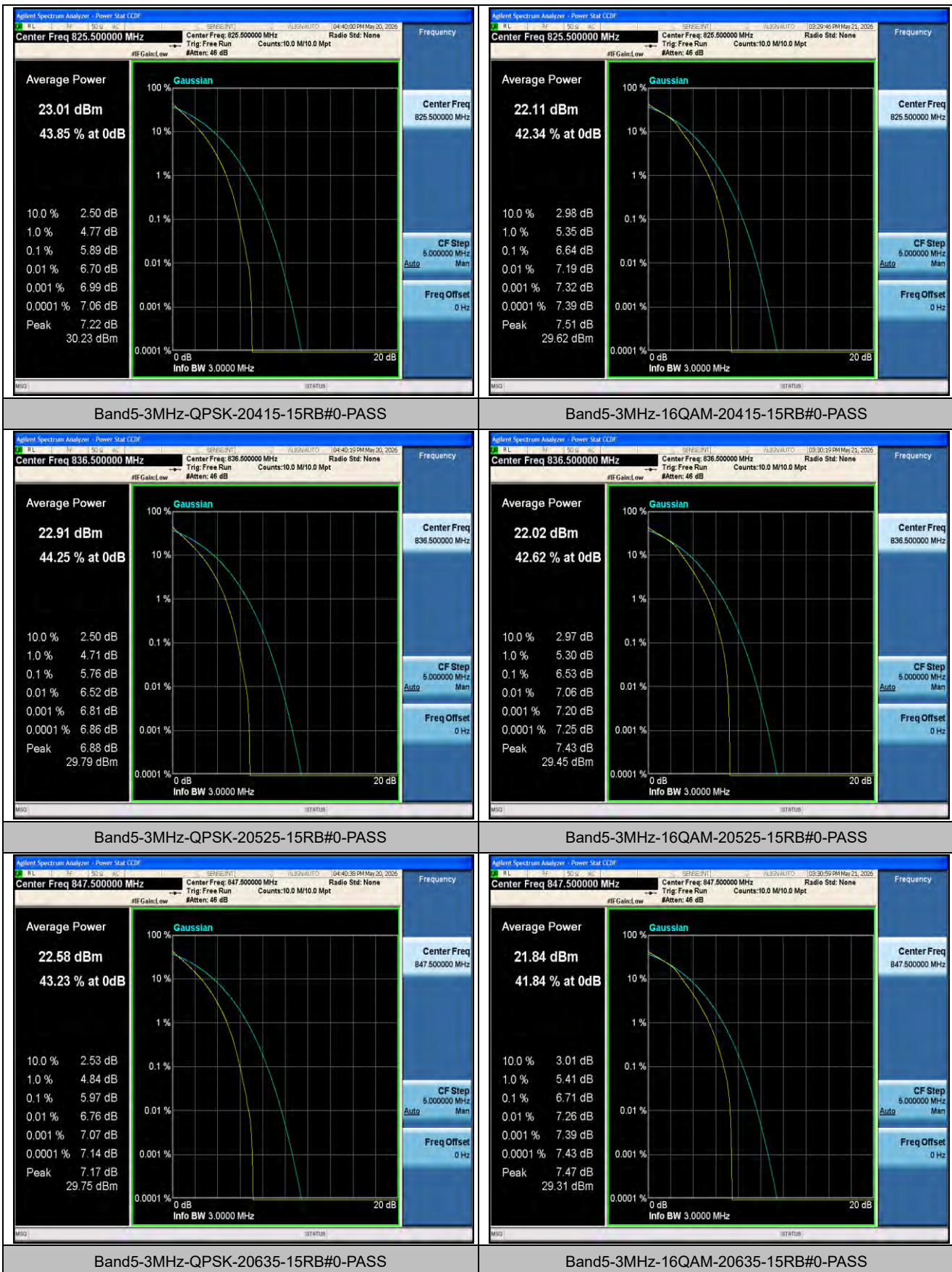
Peak-to-Average Ratio(CCDF)

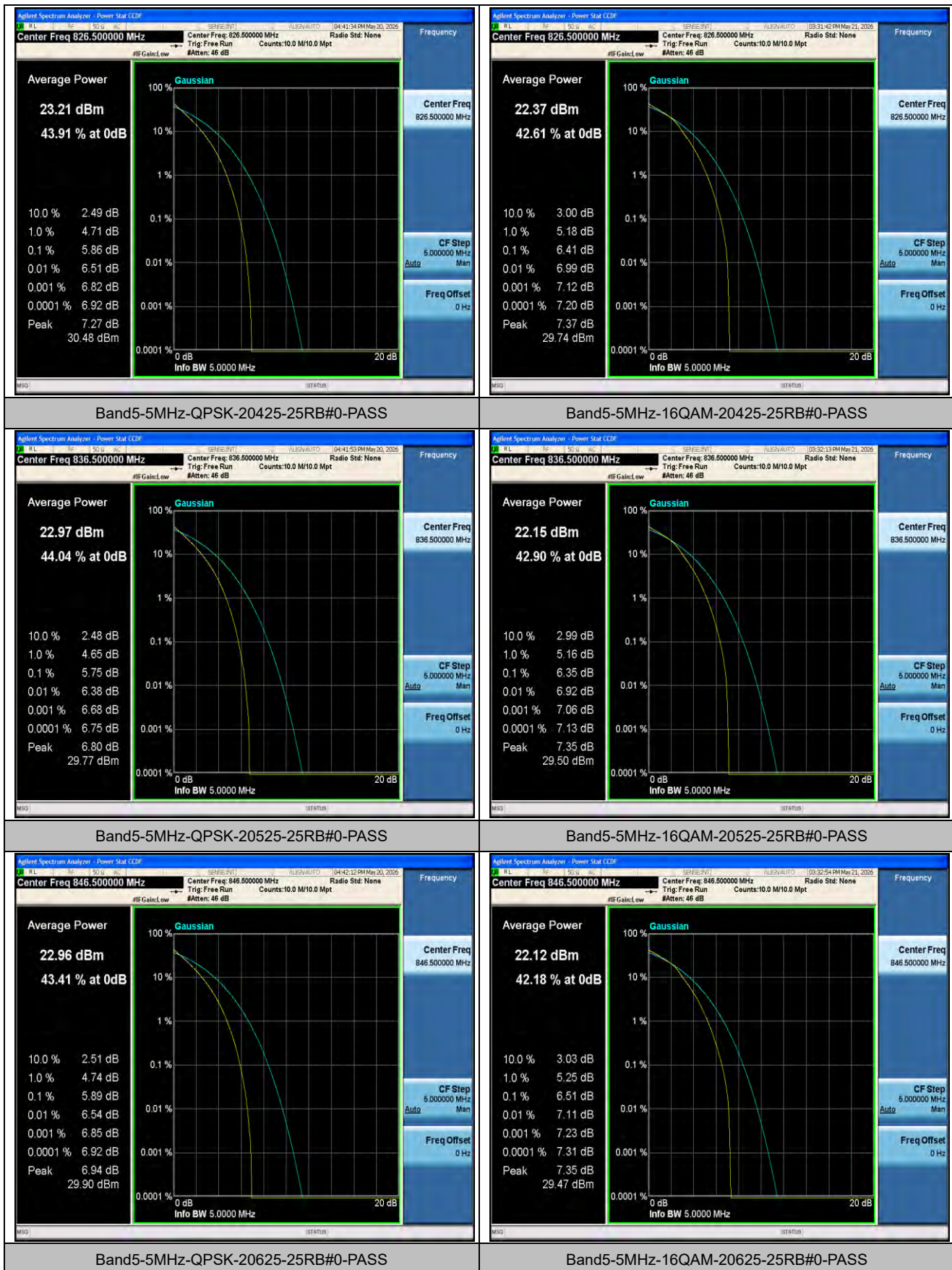
Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result (dB)	Limit (dB)	Verdict
Band5	1.4MHz	QPSK	20407	6RB#0	5.90	13	PASS
Band5	1.4MHz	16QAM	20407	6RB#0	6.50	13	PASS
Band5	1.4MHz	QPSK	20525	6RB#0	5.70	13	PASS
Band5	1.4MHz	16QAM	20525	6RB#0	6.29	13	PASS
Band5	1.4MHz	QPSK	20643	6RB#0	5.83	13	PASS
Band5	1.4MHz	16QAM	20643	6RB#0	6.43	13	PASS
Band5	3MHz	QPSK	20415	15RB#0	5.89	13	PASS
Band5	3MHz	16QAM	20415	15RB#0	6.64	13	PASS
Band5	3MHz	QPSK	20525	15RB#0	5.76	13	PASS
Band5	3MHz	16QAM	20525	15RB#0	6.53	13	PASS
Band5	3MHz	QPSK	20635	15RB#0	5.97	13	PASS
Band5	3MHz	16QAM	20635	15RB#0	6.71	13	PASS
Band5	5MHz	QPSK	20425	25RB#0	5.86	13	PASS
Band5	5MHz	16QAM	20425	25RB#0	6.41	13	PASS
Band5	5MHz	QPSK	20525	25RB#0	5.75	13	PASS
Band5	5MHz	16QAM	20525	25RB#0	6.35	13	PASS
Band5	5MHz	QPSK	20625	25RB#0	5.89	13	PASS
Band5	5MHz	16QAM	20625	25RB#0	6.51	13	PASS
Band5	10MHz	QPSK	20450	50RB#0	5.77	13	PASS
Band5	10MHz	16QAM	20450	27RB#0	6.40	13	PASS
Band5	10MHz	QPSK	20525	50RB#0	5.74	13	PASS
Band5	10MHz	16QAM	20525	27RB#0	6.29	13	PASS
Band5	10MHz	QPSK	20600	50RB#0	5.76	13	PASS
Band5	10MHz	16QAM	20600	27RB#0	6.24	13	PASS

Test Graphs









Band5-10MHz-QPSK-20450-50RB#0-PASS



Band5-10MHz-16QAM-20450-27RB#0-PASS



Band5-10MHz-QPSK-20525-50RB#0-PASS



Band5-10MHz-16QAM-20525-27RB#0-PASS



Band5-10MHz-QPSK-20600-50RB#0-PASS



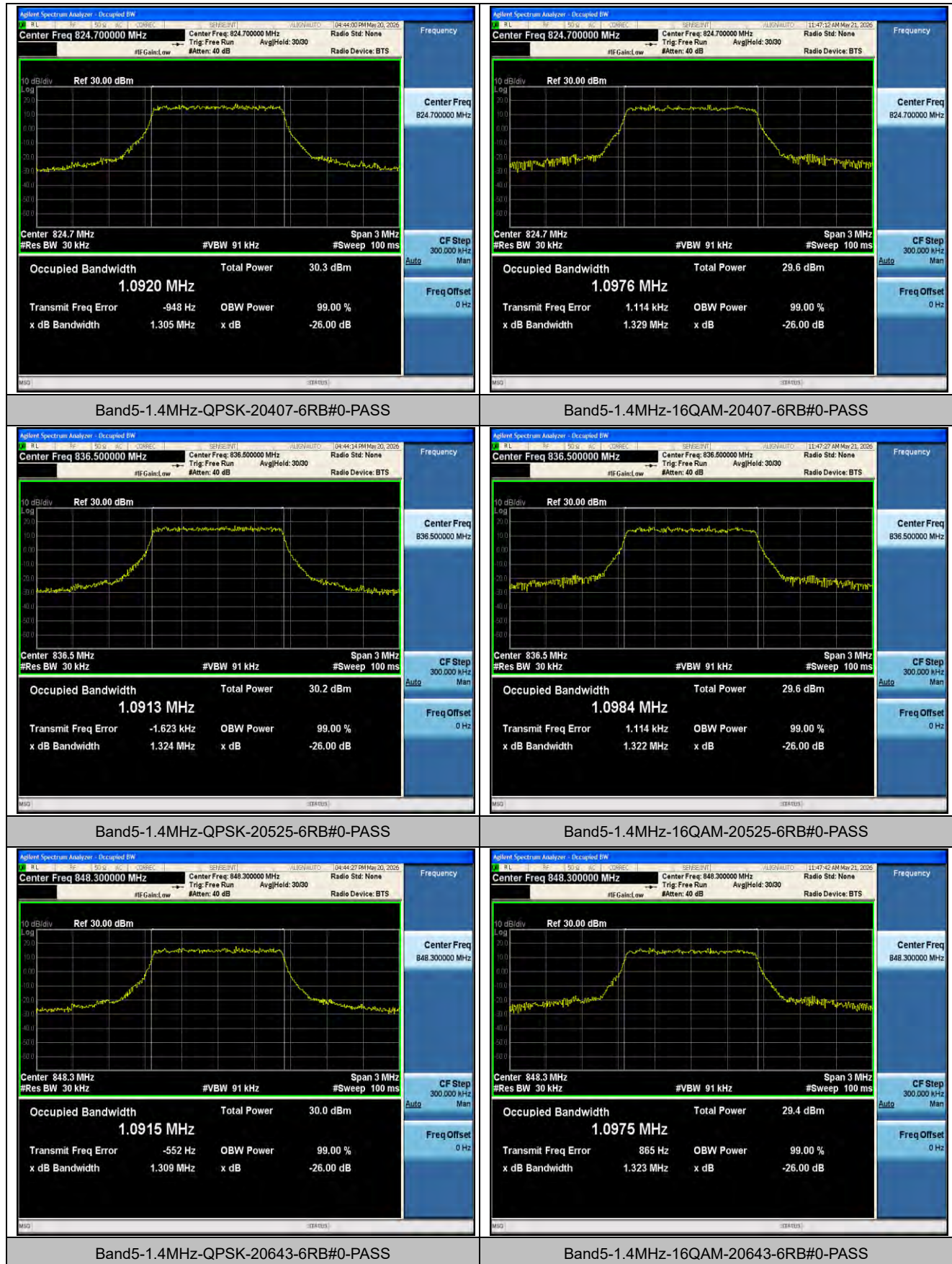
Band5-10MHz-16QAM-20600-27RB#0-PASS

26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	OBW (MHz)	26dB EBW (MHz)	Verdict
Band5	1.4MHz	QPSK	20407	6RB#0	1.0920	1.305	PASS
Band5	1.4MHz	16QAM	20407	6RB#0	1.0976	1.329	PASS
Band5	1.4MHz	QPSK	20525	6RB#0	1.0913	1.324	PASS
Band5	1.4MHz	16QAM	20525	6RB#0	1.0984	1.322	PASS
Band5	1.4MHz	QPSK	20643	6RB#0	1.0915	1.309	PASS
Band5	1.4MHz	16QAM	20643	6RB#0	1.0975	1.323	PASS
Band5	3MHz	QPSK	20415	15RB#0	2.7037	3.121	PASS
Band5	3MHz	16QAM	20415	15RB#0	2.7014	3.158	PASS
Band5	3MHz	QPSK	20525	15RB#0	2.7009	3.106	PASS
Band5	3MHz	16QAM	20525	15RB#0	2.7015	3.159	PASS
Band5	3MHz	QPSK	20635	15RB#0	2.7019	3.117	PASS
Band5	3MHz	16QAM	20635	15RB#0	2.7001	3.169	PASS
Band5	5MHz	QPSK	20425	25RB#0	4.5116	5.558	PASS
Band5	5MHz	16QAM	20425	25RB#0	4.5192	5.576	PASS
Band5	5MHz	QPSK	20525	25RB#0	4.5108	5.509	PASS
Band5	5MHz	16QAM	20525	25RB#0	4.5168	5.597	PASS
Band5	5MHz	QPSK	20625	25RB#0	4.5125	5.515	PASS
Band5	5MHz	16QAM	20625	25RB#0	4.5076	4.906	PASS
Band5	10MHz	QPSK	20450	50RB#0	9.0282	10.49	PASS
Band5	10MHz	16QAM	20450	27RB#0	5.0287	6.475	PASS
Band5	10MHz	QPSK	20525	50RB#0	9.0139	10.38	PASS
Band5	10MHz	16QAM	20525	27RB#0	5.1636	8.454	PASS
Band5	10MHz	QPSK	20600	50RB#0	9.0242	10.51	PASS
Band5	10MHz	16QAM	20600	27RB#0	5.0256	6.495	PASS

Test Graphs



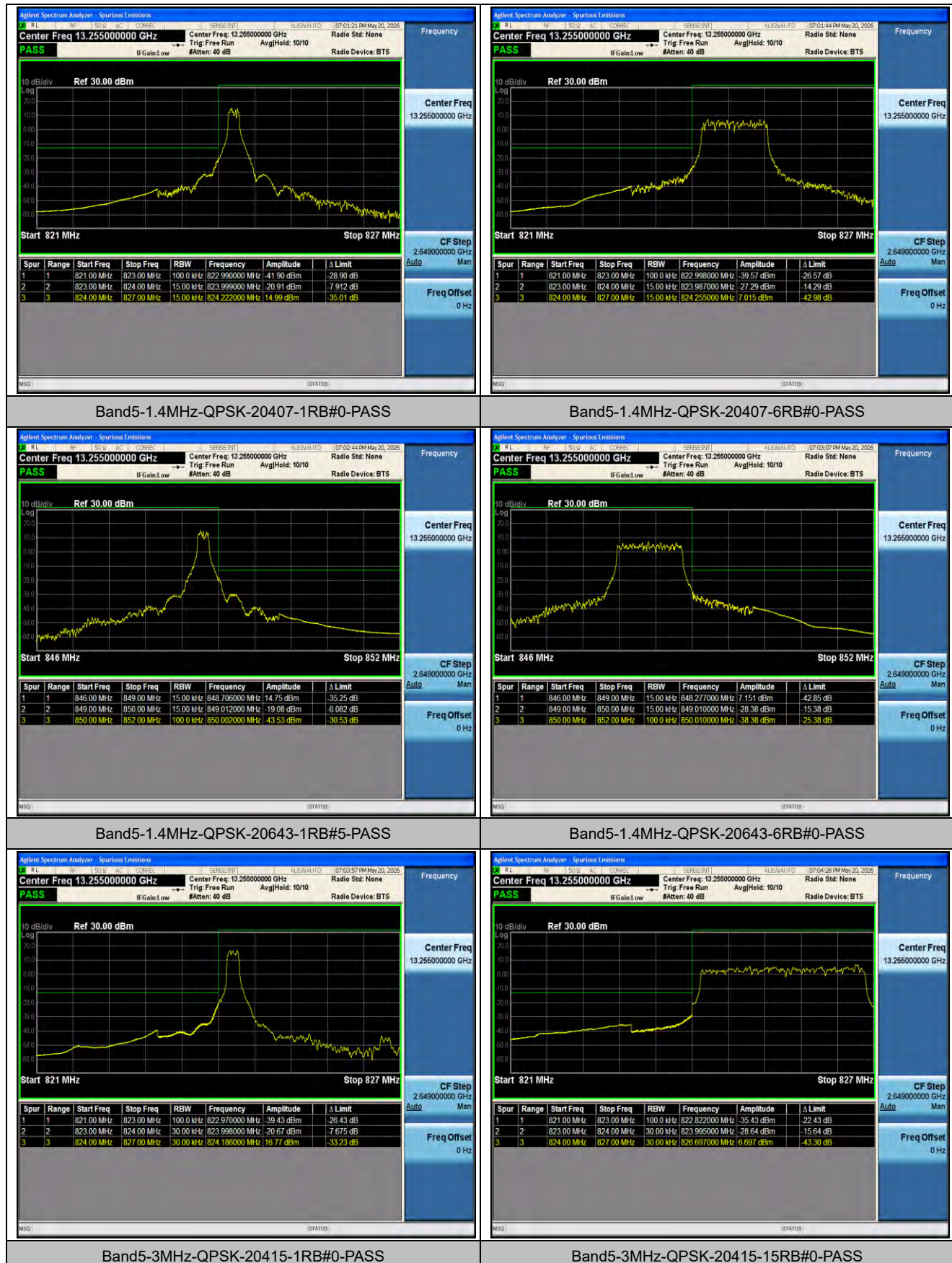






Band Edge

Test Graphs

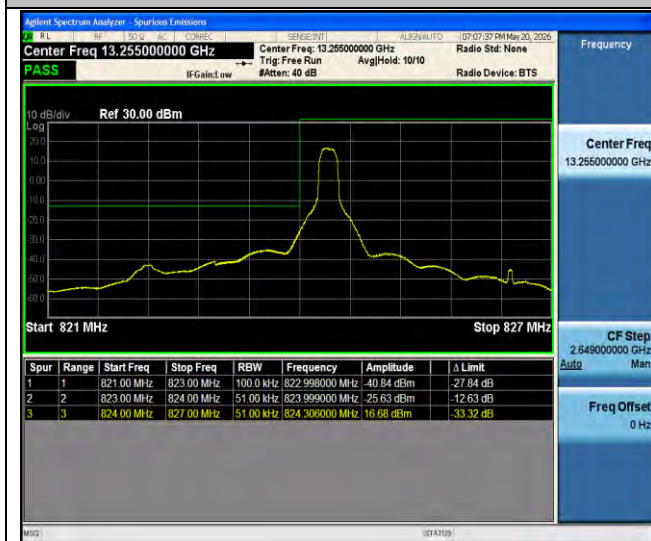




Band5-3MHz-QPSK-20635-1RB#14-PASS



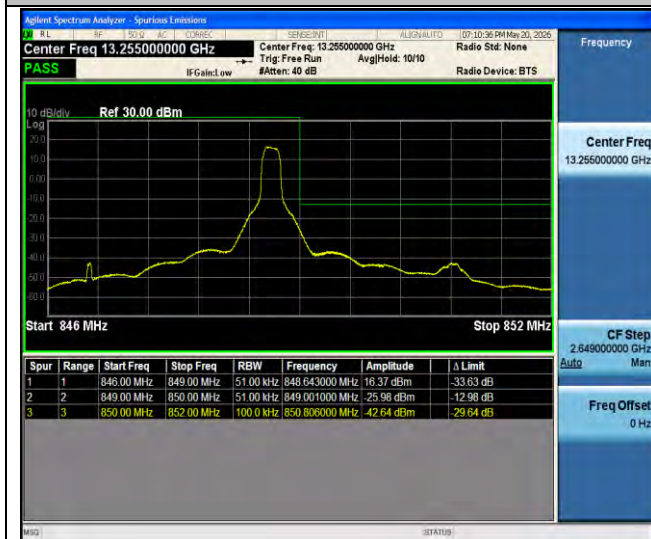
Band5-3MHz-QPSK-20635-15RB#0-PASS



Band5-5MHz-QPSK-20425-1RB#0-PASS



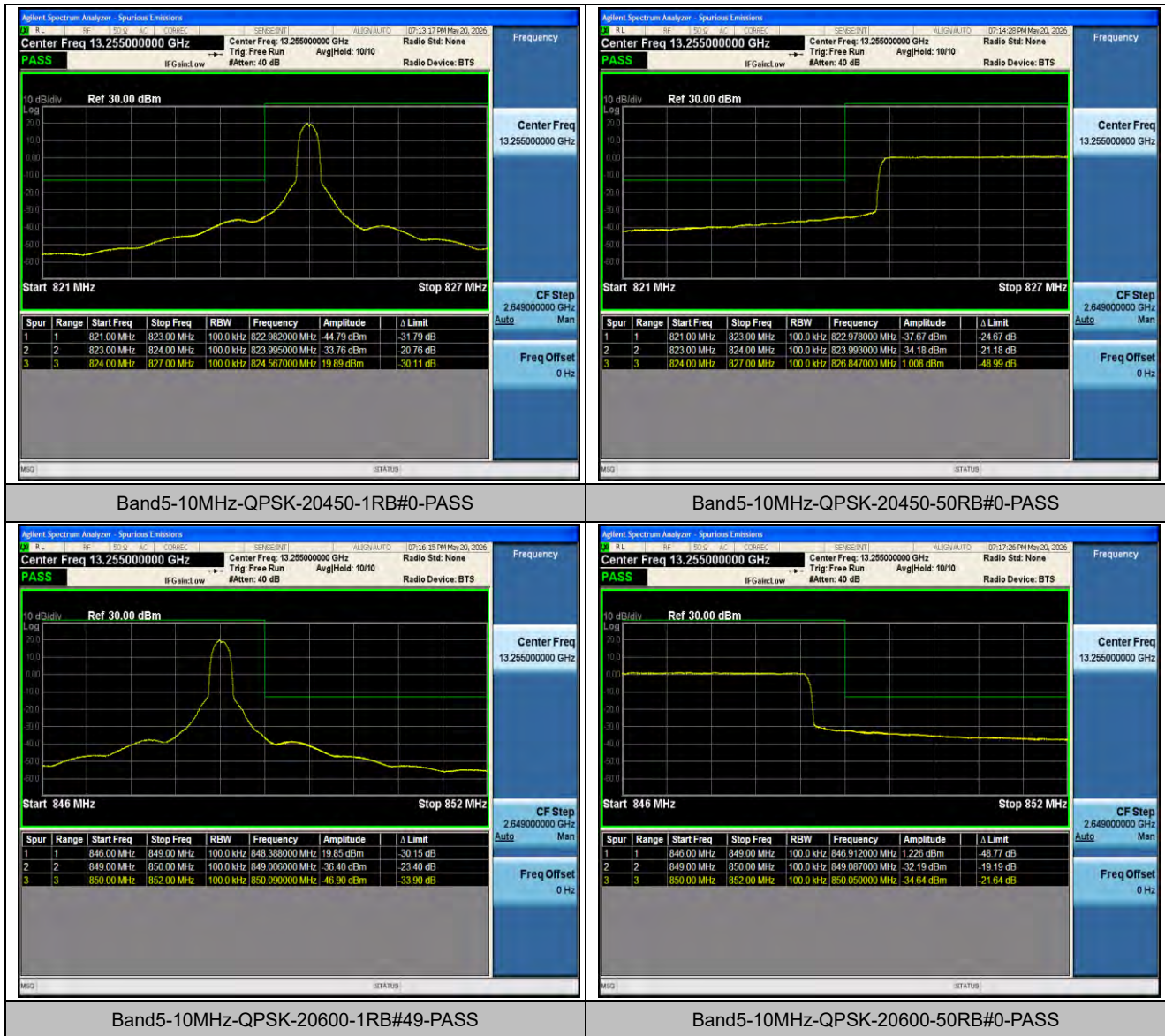
Band5-5MHz-QPSK-20425-25RB#0-PASS



Band5-5MHz-QPSK-20625-1RB#24-PASS

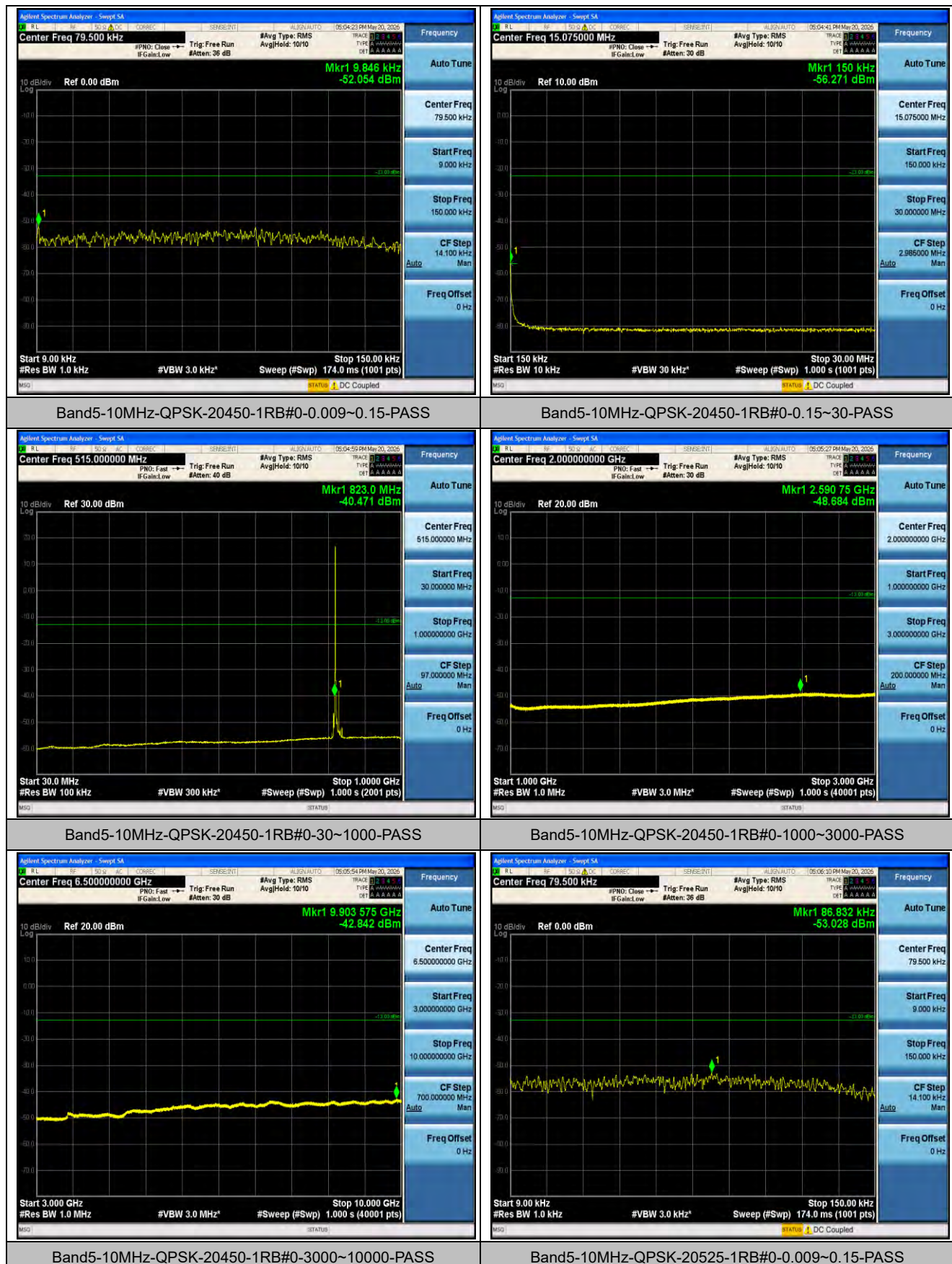


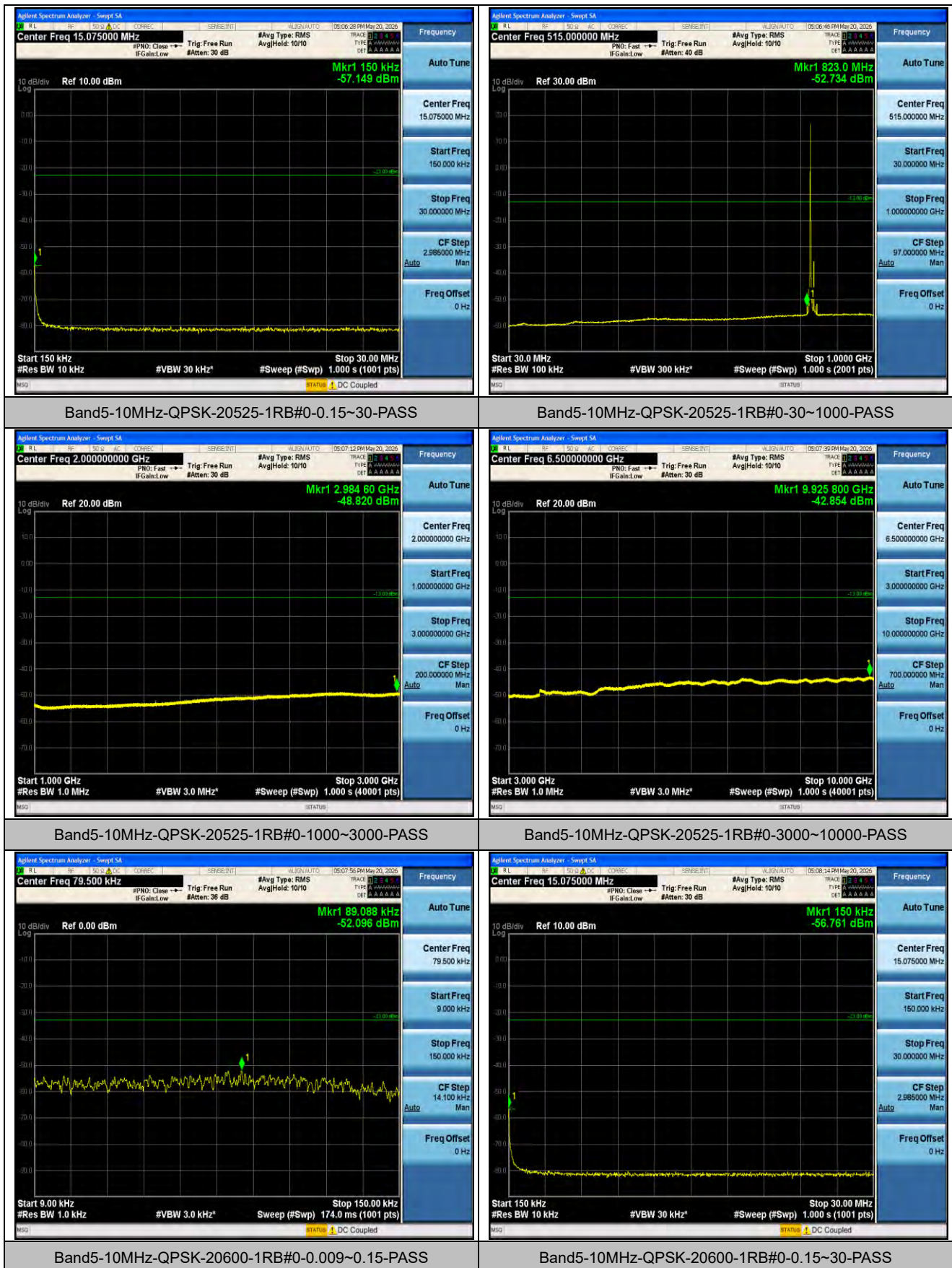
Band5-5MHz-QPSK-20625-25RB#0-PASS



Conducted Spurious Emission

Test Graphs



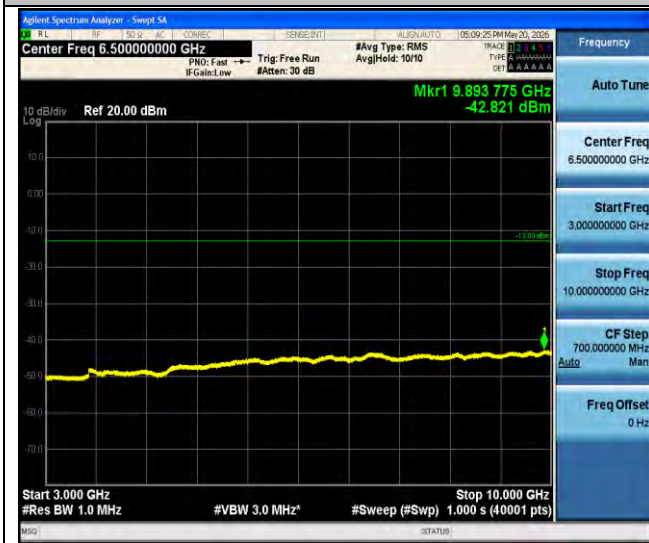




Band5-10MHz-QPSK-20600-1RB#0-30~1000-PASS



Band5-10MHz-QPSK-20600-1RB#0-1000~3000-PASS



Band5-10MHz-QPSK-20600-1RB#0-3000~10000-PASS

Frequency Stability

Test Result

Voltage										
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band5	10MHz	QPSK	20525	50RB#0	VN	NT	-1.00	-0.001195	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	VL	NT	-1.80	-0.002152	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	VH	NT	-0.10	-0.000120	±2.5	PASS

Temperature										
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band5	10MHz	QPSK	20525	50RB#0	NV	-30	0.10	0.000120	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	NV	-20	-0.20	-0.000239	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	NV	-10	-0.60	-0.000717	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	NV	0	-0.10	-0.000120	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	NV	10	-0.90	-0.001076	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	NV	20	-0.70	-0.000837	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	NV	30	-0.10	-0.000120	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	NV	40	0.50	0.000598	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	NV	50	2.00	0.002391	±2.5	PASS

~The End~